# UltraPort OSFP 1xN cages Product Specification S6083C Rev 1.0

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SINGLE 1° CAGE

MiniSAS



FS1 SINGLE PORT CAGE WITH METAL GASKET

Revision Date: January 20, 2015



1x1 Cage with Fin heat sink



1x4 Cage with pin fin heat sinks and single barrel light pipes



1x2 Cage with round pin heat sinks and single barrel light pipes



1x6 Cage with square pin heat sinks and quad barrel light pipes

#### Overview

This short form Product Specification defines the general use and performance parameters for Amphenol's UltraPort QSFP 1xN cage series. It is designed to comply with the Quad Small Form-factor Pluggable (QSFP) SFF-8663 QSFP+ 28Gbps cage specification.

Availability: 1x1, 1x2, 1x3, 1x4 and 1x6 versions are available in thru the bezel configurations. 1x1 One degree cage also available in thru the bezel configuration. Behind bezel and Hybrid versions shall become available soon.

### Usage

The UltraPort QSFP single row cages are intended to be used with UltraPort QSFP SMT connector . (Refer to Product spec. S6082C)

### **Applications**

Intended for use in high speed serial interconnect applications such as:

- Cellular hubs
- Switches
- Servers
- Storage devices

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26 POSITION CONNECTOR WITH HOLD DOWN TABS



## **General Requirements**

Cages are packaged in trays.

Heat sinks/clips and light pipes are assembled to the cage and placed in the tray if available. Heat sinks and heat sink clips may be packaged separately for 1x1 options only. Dust covers are packaged separately if ordered. "Belly-to-belly" version allows two cages to mount on opposite sides of the PCB.

### **Cage Mechanical Characteristics**

Cages are available with and without Heat Sinks Cages are available with and without Light Pipes Cages are press-fit into PCBs Cages have error proof features according to QSFP MSA

#### **Material Requirements**

Unless otherwise specified, the materials for each component shall be:

#### Cage

- Base material Phosphor Bronze
- 100 μ" (2.54 μm)Minimum Nickel plated

#### Heat Sink

- Base material –Aluminum alloy with Nickel plating
- Heat Sink Clip
  - Base material Stainless Steel

## Light Pipe

Base material – Clear Polycabonate, optical grade

#### Dust Cover

Base material – Conductive Rubber

#### EMI gasket

Base material – Conductive elastomer

#### EMI flange

Base material – Dia cast zinc alloy with Nickel plating

Operating temperature:  $-40^{\circ}$  to  $+85^{\circ}$  C Storage temperature:  $-40^{\circ}$  to  $+85^{\circ}$  C

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OSFP+ 38 POSITION CONNECTOR





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FS1 SINGLE PORT CAGE WITH METAL GASKET

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**Assembly Instructions** 

Compliant Pin Holes must be drilled and plated through to specific dimensions to prevent damage during placement of cage assembly on the PCB. See table below.



Drawing Not to Scale

Surface Finish	Drilled Hole Diameter	Finished Hole Diameter	Surface Finish Thickness
HASL SnPb	1.15±0.02	1.05 Ref	0.004-0.010
Immersion Sn	1.15±0.02	1.05 Ref	0.0005 Min.
OSP	1.15±0.02	1.05 Ref	0.0002-0.0005
Immersion Au/Ni	1.15±0.02	1.05 Ref	0.004-0.0076 (Ni) 0.0001-0.0005 (Au)

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#### **Available Documents**

#### **Drawing Numbers:**

P-FS1-Z38-X0Z6-10	UltraPort QSFP	SMT connector, with resonance dampening feature
P-U95-T(A,L)1X1-1XXX P-U95-T(L)2X1-1XXX P-U95-T(L)3X1-1XXX	UltraPort QSFP	1x1 thru the bezel cage, 0 deg. with heat sink and light pipe options 1x2 thru the bezel cage, 0 deg. with heat sink and light pipe options 1x3 thru the bezel cage, 0 deg. with heat sink and light pipe options
P-U95-T(L)4X1-1XXX P-U95-T(L)6X1-1XXX	UltraPort QSFP	1x4 thru the bezel cage, 0 deg. with heat sink and light pipe options 1x6 thru the bezel cage, 0 deg. with heat sink and light pipe options
P-U95-W1X1-1XXX		1x1 thru the bezel cage, 1 deg. with heat sink and ngitt pipe options 1x1 thru the bezel cage, 1 deg. with heat sink options
P-U95-G(P)1X1-1XXX P-U95-G(P)2X1-1XXX P-U95-G(P)3X1-1XXX	UltraPort QSFP	1x1 behind bezel, 0 deg., heat sink and light pipe options-Preliminary 1x2 behind bezel, 0 deg., heat sink and light pipe options-Preliminary 1x3 behind bezel, 0 deg., heat sink and light pipe options-Preliminary
P-U95-D(V)1X1-1XXX	UltraPort QSFP	1x1 hybrid cage, 0 deg., heat sink and light pipe options-Preliminary
P-U95-D(V)2X1-1XXX P-U95-D(V)3X1-1XXX P-U95-D(V)4X1-1XXX	UltraPort QSFP	1x2 hybrid cage, 0 deg., heat sink and light pipe options-Preliminary 1x3 hybrid cage, 0 deg., heat sink and light pipe options-Preliminary 1x4 hybrid cage, 0 deg., heat sink and light pipe options-Preliminary

Contact factory or Authorized Amphenol representative for alternate configurations

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